

# Title of invention: Nozzle Comb

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## Background Information

### 1 Field of the invention

This invention relates to hair liquid applicators.

### 2. Description of Prior Art

There are a variety of combs that applies liquid through the comb. However, each invention differs in efficiency and effectiveness in distributing fluid to hair.

U.S Pat. No, 6,047,703(Paglericcio et al) discloses a fluid applicator. Irregularity in position and number of holes in each tooth does not permit controlled liquid dispensing. Number and position of holes determine the amount of fluid dispensed in a given area. Even distribution of fluid cannot be achieved if each tooth has different number of holes because the amount of fluid each tooth dispenses differs from one another. Also, if the holes are not positioned regularly, each part of hair associates with different amount of fluid.

## **Summary of Invention**

After filling a container with fluid, close the container with a threaded receiver top, to which teeth of the comb are attached. The teeth are in the form of tubes. Squeezing the container forces the fluid to flow into the hollow tubes from the bottle, and to exit through the vertical opening at the tip of each tooth. The teeth of the comb are arranged as shown in Fig 11 and 12 that as hair is combed, hair is being separated, and fluid dispersed from the gaps coats the hair evenly and thoroughly from the roots to the ends of the hair. An opening is designed to spread fluid efficiently and effectively. Its vertical shape and open bottom allows fluid to disperse in all directions within 180 degrees to 360 degrees range. There are three layers of the teeth that even one brush coats the hair three times.

## **Reference Numbers**

1. Tooth of Comb
2. Fluid Passageway
3. Exit
4. Receiver Top
5. Container
6. Fluid
7. Internal Threads in Receiver Top
8. Direction of Fluid
9. Hair
10. Direction of Combing
11. Coating of Left Side of a Hair
12. Coating of Right Side of a Hair
13. Coating of Entire Hair

**Brief Description of the Drawings (FIG1- FIG12, 3 pages)**

**FIG.1** is a front view

**FIG.2** is a side view of FIG.1

**FIG.3** is a bottom view of FIG.1

**FIG.4** is a cross-sectional view of FIG.1

**FIG.5** is an enlarged view of FIG.4

**FIG.6** is a cross-sectional view of FIG.2

**FIG.7** is an enlarged view of FIG.6

**FIG.8** is a cross-sectional view of FIG.3

**FIG.9** is an enlarged view of FIG.8

**FIG.10** is a cross-sectional view of FIG.1

**FIG.11** is an enlarged view of FIG.3 and 12 showing application of the invention

**FIG.12** is a practical application view of FIG.3 and 11

**Detailed Description**

A container 5 is sized to accommodate a receiver top 4, to which teeth of the comb are attached. Squeezing the bottle forces the fluid to flow into the teeth of the comb 1, which are in the form of tubes. Fluid then exits the tubes through the vertical opening 3 at the tip of each tooth. The opening is designed to spread the fluid effectively and efficiently. Its vertical shape and open bottom allows the applicator to dispense fluid in all directions within 180 degrees to 360 degrees range. Fluid dispenses in direction of 8 in FIG.5, 7, and 8. The teeth of the comb are arranged in the zigzag position. Zigzagged three layers of the teeth enable one combing as effective as coating same hair three times with fluid. As hair is combed, each hair is curved three times by the three teeth layers. The first layer coats one side of the hair, and the second layer coats the opposite side. The last layer covers the entire hair. This allows even and controlled distribution of

fluid. Another advantage of this applicator is that fluid comes out only when the bottle is squeezed.

The embodiments of the invention in which an exclusive property of privilege is claimed are defined as follows:

1. An applicator for hair liquid comprising

A tooth of the comb defined by a vertical opening which cuts open the surface of the tip from the left side to the right side of the tooth, enabling the fluid to dispense in all directions within 180 degrees to 360 degrees range; and

A plurality of hollow teeth attached to the receiver top.

2. Three layers of the teeth arranged in a zigzag position that the first layer coats one side of the hair, the second layer the opposite side, and the third layer the entire hair;

Three layers of the teeth that curve a hair three times in one brush; and

A plurality of layer of teeth attached to the receiver top.